



Introduction

The Agency for Healthcare Research and Quality (AHRQ) annually publishes a wealth of information in its congressionally mandated National Healthcare Quality Report (NHQR). This *State Snapshot* series provides quick and easy access, through the Web (http://www.qualitytools.ahrq.gov/qualityreport/state/spf.aspx), to the many measures and tables of the NHQR from a State-specific perspective.

Each *Snapshot* shows two areas in which the health care system of a particular State (or the District of Columbia) is doing well and two in which it might be able to improve. The examples are chosen from those measures for each State that score above average and below average, respectively, relative to all reporting States. Much more information can be viewed on the Web through the *Snapshot* series (at the address above). The *State Summary Tables* list over 100 measures, most with estimates for 2 years of data, for each State, when available from the NHQR.

Data sources, statistics used to assign the categories, calculation of averages, and criteria for selecting the examples presented below are explained at http://www.qualitytools.ahrq.gov/qualityreport/state/method.aspx.

North Carolina Overview

The *North Carolina Summary Table* includes 106 measures from the most recent year of data in the 2004 NHQR (http://www.qualitytools.ahrq.gov/qualityreport/state/stateData.aspx?state=NC). For the most recent data year, North Carolina has 15 measures in the above-average category (compared to all reporting States), 41 in the average category of States, and 30 in the below-average category of States. North Carolina has 20 measures without sufficient data for classification. Measures in the below-average, and possibly in the average, categories indicate areas that may be fruitful for quality improvement initiatives.

Where North Carolina Does Well (Examples)

In this section, the examples show a few of the measures for which the North Carolina result was in the above-average group of States. For some measures, such as screening rates, the highest rate is the best result; and for other measures, such as time to treatment, the lowest rate is the best. The above-average category includes the best results however measured. A rate is considered above average when it is better than the all-State average and is statistically different from the all-State average. The all-State average reflects all States, including the District of Columbia, with available data for the measure.

A benchmark for quality improvement is provided below—the top-10-percent State average. This is the average for the five States that have the highest rates among all reporting States and the District of Columbia, 51 jurisdictions. The benchmark shows the best results attained under current medical practice. Some States may view that as a goal for improvement or may set more ambitious goals.

Example 1: Percent of children age 19-35 months who received all recommended vaccines

| Most recent | Top-10-percent | All-State | Bottom-10-percent | _ |
|-------------|----------------|-----------|--------------------------|----------------|
| data year | State average | average | State average | North Carolina |
| 2002 | 84.1 | 76.1 | 65.3 | 82.4 |

- This measure shows how effectively the health care system provides children less than 3 years of age with all recommended vaccinations. The higher the State estimate for this measure, the more children that receive all recommended vaccinations within the State.
- In 2002, 82.4 percent of children in North Carolina age 19-35 months had received all recommended vaccinations. This was roughly equivalent to the top-10-percent State average of 84.1 percent.
- North Carolina's rate for this measure was above average for both the most recent year (2002) and the initial year (2000).
- To view all States on this measure in the 2004 NHQR, see Appendix Table 1.60b.

Example 2: Percent of women age 40 and over who report they had a mammogram within the past 2 years

| | | | Bottom-10-percent | N. d. G. H |
|-----------|---------------|---------|-------------------|----------------|
| data year | State average | average | State average | North Carolina |
| 2002 | 83.3 | 76.2 | 67.1 | 83.4 |

- This measure shows the extent to which women receive mammograms to prevent breast cancer. The higher the State estimate for this measure, the better the screening of women for breast cancer in the State.
- In 2002, 83.4 percent of women in North Carolina age 40 and over had obtained mammograms within the previous 2 years. This was roughly equivalent to the top-10-percent State average of 83.3 percent.

- North Carolina's estimate for this measure was above average for the most recent year (2002). This was an improvement from North Carolina's rate in 2000, when it was only average.
- To view all States on this measure in the 2004 NHQR, see Appendix Table 1.1b.

Where Improvement May Be Needed (Examples)

The examples in this section are measures for which the North Carolina result was in the below-average group of States. To understand how to use these results, see the following section (How To Use the Information). How results on each measure are classified into the below-average category is described at http://www.qualitytools.ahrq.gov/qualityreport/state/method.aspx.

The bottom-10-percent State average is provided as a parallel to the top-10-percent State average. Comparison of the two averages shows how far the five States with the lowest rates have to improve to achieve the results of the five States with the best rates.

Example 3: Percent of liveborn infants with low birth weight (less than 2,500 grams or 5.5 pounds)

| Most recent | Top-10-percent | All-State | Bottom-10-percent | |
|-------------|----------------|-----------|-------------------|----------------|
| data year | State average | average | State average | North Carolina |
| 2001 | 5.7 | 7.8 | 10.0 | 8.9 |

- This measure shows the number of live births weighing less than 2,500 grams or 5.5 pounds, which predicts clinical complications and potential developmental problems for small babies. The lower the percent of live births with low birthweight in the State, the healthier the newborn babies in the State.
- In 2001, 8.9 percent of infants born in North Carolina had very low birth weight. This was roughly equivalent to the bottom-10-percent State average of 10.0 percent. The top-10-percent State average was 5.7 percent.
- North Carolina's rate for this measure was below average for both the most recent year (2001) and the initial year (1998).
- To view all States on this measure in the 2004 NHQR, see Appendix Table 1.57c.

Example 4: HIV-infection deaths per 100,000 population

| | | | Bottom-10-percent | |
|-----------|---------------|---------|-------------------|----------------|
| data year | State average | average | State average | North Carolina |
| 2001 | 1.2 | 3.4 | 10.6 | 5.6 |

• This measure shows the number of deaths from HIV per 100,000 people. The lower the State estimate for this measure, the fewer HIV-related deaths occur in the State. This lower death rate could be explained by effective treatment or a low incidence of HIV among the State population.

- In 2001, there were six HIV-infection deaths per 100,000 people in North Carolina. This estimate was below the all-State average of three HIV-infection deaths per 100,000 people.
- North Carolina's rate for this measure was below average for both the most recent year (2001) and the initial year (1999).
- To view all States on this measure in the 2004 NHQR, see Appendix Table 1.55b.

How To Use the Information

The NHQR offers a rare opportunity for States and the District of Columbia to view their health care systems in comparison to other State systems on about 100 quality measures. All States have measures in both the above-average and the below-average groups. A first step to determining whether and in which areas quality improvement should be fostered in a State is to study measures in the State Summary Table

(http://www.qualitytools.ahrq.gov/qualityreport/state/statedata.aspx?state=NC). Understanding what these measures mean will require insight from many experts familiar with the health care system in the State as well as with quality measurement and improvement strategies. It may also require more study and data collection to determine that a problem actually exists or to identify underlying problems and possible solutions. For example, factors that affect specific population subgroups may underlie apparent health care quality problems and may thus require outreach focused toward those groups. Health care processes also may contribute to poor results, and thus quality improvement may require change in behavior of health care providers. AHRQ hopes that these data aid North Carolina leaders in exploring the quality of health care in their jurisdiction and in working to improve it.

For More Information

State Snapshots and State Summary Tables for each State are available on the Internet at http://www.qualitytools.ahrq.gov/qualityreport/state/spf.aspx. For additional information on this topic, please send e-mail to QRDRInquiries@ahrq.gov.

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